

THE OHIO AGRICULTURAL EXPERIMENT STATION.

Second annual report of the Ohio agricultural experiment-station, for 1883. Printed by order of the state legislature. Columbus, *Myers brothers*, state printers, 1884. 207 p. 8°.

THE first impression made by this report is that of unusual industry in experimentation. A large amount of work has been done upon wheat and Indian corn, as was natural, considering the location of the station. Quite extensive feeding-experiments have been executed; and a number of minor subjects have received more or less attention, such as observations on garden-vegetables, fruits, weeds, and injurious insects, the testing of over five hundred samples of seeds as to their germinative power, experiments on cutting potatoes for seed, etc.

Over forty pages are devoted to experiments upon wheat, and nearly as many to those upon Indian corn; such subjects being considered as the comparative value of varieties, thick and thin seeding, winter protection and spring cultivation of wheat, planting at different depths for corn, methods of culture, application of fertilizers, etc. Some interesting experiments in crossing different varieties of corn are also in progress.

The feeding-experiments relate mainly to milk-production, though a few pig-feeding trials are added; showing that the same amount of food produces more rapid growth when the animals are protected from extreme cold, — a fact which has already been proved so often, and which is so fully in accord with all that we know of the effects of a low temperature on animals, that it would seem that it might now be accepted as established.

The experiments presented in this report are so good, and represent so much labor, that one can but regret that they are not better. For example: the field-experiments on wheat and corn give evidence of care in planning and in execution. They take up important subjects, and present much food for reflection to farmers; but in all candor it must be said that they *prove* nothing. Passing over the question which is now being seriously asked by eminent authorities, whether field-trials are capable of yielding trustworthy results, it is certain, that, in order that they may do so, they must be executed with all the precautions which the experience of thirty years has suggested. It is not too much to say that these experiments are not thus distinguished, though they do, indeed, compare favorably with many others; and when we find, for example, the two unmanured plots of one series yielding respectively 40.2 and 70.4 bushels of corn per acre, we must conclude that the results of such trials are to be taken with some grains of allowance. The feeding-trials, too, while in many respects carefully conducted, have just enough elements of uncertainty — short periods, estimates of amount of hay eaten, estimates of composition of food, etc. — to give rise to the constant feeling that the results may be accidental.

It is, of course, to be presumed that this station, like most others, has not the means to do all that its director would be glad to do; and a fair criticism should take into account the limitations under which such work must usually be done. At the same time, certain conditions are essential to the prosecution of scientific research; and experiments made in disregard of them are no better because that disregard is enforced.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

PROCEEDINGS OF THE SECTION OF GEOGRAPHY.

THE meetings of the section were held in the Mont-real gymnasium, which was sometimes crowded to overflowing, especially upon the appearance of Lieuts. Greely and Ray.

The president's address was listened to with marked attention. After the usual formalities were passed, the proceedings were opened by the president, who communicated a letter which he had received from Mr. Joseph Thomson, — recently returned from Africa, — from which the following is extracted: "I shall have to tell about snow-clad mountains, grassy plateaux, and sterile plains, of picturesque isolated moun-

tains, wonderfully preserved volcanic cones and craters in which the fiery forces might have been at work the previous year, of the charming crater-lake Chala on the slopes of Kilima-njaro, the silvery sheets of Nainashua, Mtakuto, and Baringo, lying embosomed in a great valley-like depression formed by the dark and frowning mountains of Man and Lykipia. Not the least interesting subject will be that of the enormous volcanic mountains El Gon or Ligonyi.

"The people themselves are more interesting and unique than their country. The Masai are in every respect a people by themselves. They have no resemblance either to the true negroes or to the Galla and Somal who shut them in. They distinctly differ in their mode of life, their curious customs, forms